

## Claims

- 5        1.    An iridescent pigment comprising a platelet shaped substrate and coated thereon at least two layers of metal oxides, each of said metal oxide layers comprising one or more metals selected from the group consisting of Ce, Sn, Ti, Fe, Zn and Zr.
- 10       2.    An iridescent pigment according to claim 1, wherein the layer adjacent to the substrate is a metal oxide layer comprising one or more metals selected from the group consisting of Ce, Sn and Fe, and wherein said pigment comprises one or more repeating set of
- 15       metal oxide layers of Sn followed by Ti.
- 20       3.    An iridescent pigment according to claim 1, wherein the layer adjacent to the substrate is a metal oxide layer comprising Sn, and the layer thereon is a metal oxide layer comprising Ti.
- 25       4.    An iridescent pigment according to claim 1, wherein a metal oxide layer comprises an alkali metal and/or an alkaline earth metal.
- 30       5.    An iridescent pigment according to claim 4, wherein the alkaline earth metal is Mg and/or Ca.
- 35       6.    An iridescent pigment according to claim 1, wherein the specific surface area is  $10 \text{ m}^2/\text{g}$  or less.
7.    An iridescent pigment according to claim 1, wherein the pore amount is  $0.006 \text{ ml}$  or less for each  $1 \text{ m}^2$  of the surface area of the platelet shaped substrate.
8.    An iridescent pigment according to claim 1, wherein the specific surface area is  $10 \text{ m}^2/\text{g}$  or less and the pore amount is  $0.006 \text{ ml}$  or

less for each 1 m<sup>2</sup> of the surface area of the platelet shaped substrate.

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9. An iridescent pigment according to claim 1, wherein the platelet shaped substrate is mica, synthetic mica, silica flakes, alumina flakes, glass flakes, thin platelet-like iron oxide or metal flakes.

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10. A method for preparing an iridescent pigment comprising preparing a suspension, said suspension comprising platelet shaped substrates and one or more water-soluble polymers and/or water-soluble nitrogen compounds, followed by coating a metal hydrate layer onto the surface of the substrates by adding one or more metal salts and a basic aqueous solution to said suspension.

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11. A method according to claim 10 comprising adding to the suspension one or more alkali metal compounds and/or alkaline earth metal compounds, optionally said one or more alkali metal compounds and/or alkaline earth metal compounds are in an aqueous solution when added to the suspension.

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12. A method according to claim 10, wherein the water-soluble polymer is polyethylene glycol.

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13. A method according to claim 10, wherein the water-soluble polymer is a water-soluble surfactant.

14. An iridescent pigment obtained by the method according to claim 10.

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15. A paint, printing ink, lacquer, plastic article, dopant for laser marking, non-dusting pigment product, non-dusting pigment granule or cosmetic preparation comprising a pigment according to claim 1.

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16. An iridescent pigment according to claim 1, wherein the average particle diameter of the substrate is 30  $\mu\text{m}$  or less.
17. An iridescent pigment according to claim 1, wherein the average particle diameter of the substrate is 20  $\mu\text{m}$  or less.
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18. An iridescent pigment according to claim 1, wherein the average particle diameter of the substrate is 10  $\mu\text{m}$  or less.
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19. An iridescent pigment according to claim 1, wherein the water-soluble nitrogen compound is urea, buret, guanidine or a water-soluble amine.
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20. A method according to claim 10, wherein the basic compound is sodium hydroxide or potassium hydroxide.
21. An iridescent pigment according to claim 3, further comprising one or more repeating metal oxide layers of Sn followed by Ti.
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22. An iridescent pigment according to claim 1, comprising a layer sequence of metal oxide layers of Sn-Ti-Sn.
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23. A method according to claim 10, wherein the metal salt is a secondary tin salt and no oxidizing agent is added to the suspension.
24. An iridescent pigment according to claim 1, comprising a layer sequence of metal oxide layers of Fe-Sn-Ti-Sn-Ti.
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25. An iridescent pigment according to claim 1, comprising a layer sequence of metal oxide layers of Fe-Sn-Fe/Ti.

26. An iridescent pigment according to claim 1, wherein the outermost layer is a sintered layer.

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